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Filed : January 16, 2004

REMARKS

Amendments to the Claims and Specification

Claims 1, 26, 41, and 83 have been amended.

Claims 24, 25, 68, and 108 have been cancelled.

Applicants respectfully submit that the amendments add no new matter and are fully supported by the application as originally filed.

Rejections under 35 U.S.C. §112

The Examiner has rejected Claims 1-124 under 35 U.S.C. §112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which the applicant regards as the invention. Claims 24, 25, 68, and 108 have been cancelled. The Examiner objected to the claim language in independent Claims 1, 41, and 83 reciting "c. a binder to bind said fibers of a. and b. to said substrate." This claim language has been eliminated from amended Claims 1, 41, and 83. Accordingly, the objection to Claims 1-23, 26-67, 69-107, and 109-124 under 35 U.S.C. §112 is overcome and it is respectfully urged that it be withdrawn.

Rejections under 35 U.S.C. §102

A. The Examiner has rejected Claims 1-2, 7-19, 32-37, 41-44, 49-61, 74-79, 83-86, 91-103 and 114-121 under 35 U.S.C. §102(b) as being anticipated by Hayase et al. (US 2002/0106478).

Claim 1 has been amended to include the requirements of thermoplastic fibers of about 2 to 6 denier, and wherein said substrate has a coefficient of static friction greater than 0.600 and less than 0.900, and wherein said substrate has a coefficient of kinetic friction greater than 0.400 and less than 0.800.

Hayase discloses a cleaning sheet of thermoplastic fibers of 10 to 150 dtex. Since 10 dtex is the equivalent to 9 denier, Hayase discloses thermoplastic fibers of 9 to 140 denier. Hayase finds that thermoplastic fibers less than 10 dtex are insufficient. ([21] of Hayase). Hayase also teaches heat-fusible fibers of 0.5 to 5 dtex (0.45 to 4.5 denier). These fibers are used to bond the thicker thermoplastic fibers and the cellulose fibers. There is no teaching in Hayase that these fibers are concentrated on the side of said substrate having lower cellulosic content as required in Claim 1.

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Additionally, Hayase does not disclose the limitations of coefficient of static friction and coefficient of kinetic friction found in the ranges of Claim 1. Since Hayase has a different range of thick thermoplastic fibers and has different structural limitations, there is no reason why Hayase would have the same ranges of coefficient of static friction and coefficient of kinetic friction.

Therefore, Hayase does not anticipate Claim 1. Claims 2, 7-19, and 32-37 are dependent on Claim 1. Therefore, Hayase does not anticipate Claims 2, 7-19, and 32-37.

Claim 41 has been amended to include the requirements of thermoplastic fibers of about 2 to 6 denier, and wherein said substrate has a ratio of the coefficient of static friction to coefficient of kinetic of greater than about 1.5. By the same reasoning as above Hayase does not teach all the limitations of Claim 41.

Therefore, Hayase does not anticipate Claim 41. Claims 42-44, 49-61, and 74-79 are dependent on Claim 41. Therefore, Hayase does not anticipate Claims 42-44, 49-61, and 74-79.

Claim 83 has been amended to include the requirements of thermoplastic fibers of about 2 to 6 denier, and wherein said substrate has a coefficient of static friction greater than 0.600 and less than 0.900. By the same reasoning as above, Hayase does not teach all the limitations of Claim 83.

Therefore, Hayase does not anticipate Claim 83. Claims 84-86, 91-103 and 114-121 are dependent on Claim 83. Therefore, Hayase does not anticipate Claims 84-86, 91-103 and 114-121.

Accordingly, the objection to Claims 1-2, 7-19, 32-37, 41-44, 49-61, 74-79, 83-86, 91-103 and 114-121 is overcome and it is respectfully urged that it be withdrawn.

B. The Examiner has rejected Claims 1-2, 7-8, 11, 13-15, 18-19, 24-29, 32-37, 41-44, 49-50, 52-53, 55-57, 60-61, 74-79, 83-86, 91-92, 94-95, 97-99, 102-103 and 116-121 under 35 U.S.C. §102(b) as being anticipated by Annis et al. (WO 97/21865). Claims 24 and 25 have been cancelled.

Claim 1 has been amended to include the requirements of thermoplastic fibers of about 2 to 6 denier, and wherein said substrate has a coefficient of static friction greater than 0.600 and less than 0.900, and wherein said substrate has a coefficient of kinetic friction greater than 0.400 and less than 0.800.

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Annis discloses coefficients of static friction of 1.57 to 0.98. Annis does not disclose a coefficient of static friction of greater than 0.600 and less than 0.900 as required by Claim 1. Annis discloses coefficients of kinetic friction of 1.29 to 0.86. Annis does not disclose coefficients of kinetic friction of greater than 0.400 and less than 0.800 as required by Claim 1.

Therefore, Annis does not anticipate Claim 1. Claims 2, 7-19, and 32-37 are dependent on Claim 1. Therefore, Annis does not anticipate Claims 2, 7-19, and 32-37.

Claim 41 has been amended to include the requirements of thermoplastic fibers of about 2 to 6 denier, and wherein said substrate has a ratio of the coefficient of static friction to coefficient of kinetic of greater than about 1.5.

Annis discloses ratios of coefficient of static friction to coefficient of kinetic friction of 1.12 to 1.26. Annis does not disclose a ratio of greater than about 1.5 as required by Claim 41.

Therefore, Annis does not anticipate Claim 41. Claims 42-44, 49-61, and 74-79 are dependent on Claim 41. Therefore, Annis does not anticipate Claims 42-44, 49-61, and 74-79.

Claim 83 has been amended to include the requirements of thermoplastic fibers of about 2 to 6 denier, and wherein said substrate has a coefficient of static friction greater than 0.600 and less than 0.900.

As shown above, Annis does not disclose a coefficient of static friction of greater than 0.600 and less than 0.900 as required by Claim 83.

Therefore, Annis does not anticipate Claim 83. Claims 84-86, 91-103 and 114-121 are dependent on Claim 83. Therefore, Annis does not anticipate Claims 84-86, 91-103 and 114-121.

Accordingly, the objection to Claims 1-2, 7-8, 11, 13-15, 18-19, 24-29, 32-37, 41-44, 49-50, 52-53, 55-57, 60-61, 74-79, 83-86, 91-92, 94-95, 97-99, 102-103 and 116-121 is overcome and it is respectfully urged that it be withdrawn.

Rejections under 35 U.S.C. §102(b)/103(a)

The Examiner has rejected Claims 32-37, 74-79, and 114-121 under 35 U.S.C. §102(b) as being anticipated by, or in the alternative, under 35 U.S.C. §103(a) as obvious over Hayase et al. (US 2002/0106478). With regard to anticipation, the reasoning with regard to the independent claims has been presented above. With regard to obviousness, amended Claim 1 has been amended to include the requirements of thermoplastic fibers of about 2 to 6 denier, and wherein

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said substrate has a coefficient of static friction greater than 0.600 and less than 0.900, and wherein said substrate has a coefficient of kinetic friction greater than 0.400 and less than 0.800. It would not be obvious to go outside the structural limitations of Hayase to obtain a substrate with the structure and properties of Claim 1. In fact, Hayase argues that fibers of less than 10dtex are insufficient for performance. Since amended Claim 1 is not obvious over Hayase, dependent Claims 32-37 are not obvious over Hayase. By the same reasoning, amended Claim 41 and dependent Claims 74-79 are not obvious over Hayase. By the same reasoning, amended Claim 83 and dependent Claims 114-121 are not obvious over Hayase.

Accordingly, the objection to Claims 32-37, 74-79, and 114-121 is overcome and it is respectfully urged that it be withdrawn.

Rejections under 35 U.S.C. §103(a)

The Examiner has rejected Claims 3-6, 45-48, 87-90 under 35 U.S.C. §103(a) as being unpatentable over Hayase et al. (US 2002/0106478) in view of Trapasso et al. (US 4,172,173).

Amended Claims 1, 41, and 83 are unobvious over Hayase as reasoned above. Since Claims 3-6, 45-48, 87-90 are dependent upon Claims 1, 41, and 83, Claims 3-6, 45-48, 87-90 are unobvious over Hayase et al. (US 2002/0106478) in view of Trapasso et al. (US 4,172,173).

Accordingly, the objection to Claims 3-6, 45-48, 87-90 is overcome and it is respectfully urged that it be withdrawn.

The Examiner has rejected Claims 20-31, 62-73, and 104-112 under 35 U.S.C. §103(a) as being unpatentable over Hayase et al. (US 2002/0106478) in view of Adams et al. (US 5,811,178).

Amended Claims 1, 41, and 83 are unobvious over Hayase as reasoned above. Since Claims 20-31, 62-73, and 104-112 are dependent upon Claims 1, 41, and 83, Claims 20-31, 62-73, and 104-112 are unobvious over Hayase et al. (US 2002/0106478) in view of Adams et al. (US 5,811,178).

Accordingly, the objection to Claims 20-31, 62-73, and 104-112 is overcome and it is respectfully urged that it be withdrawn.

The Examiner has rejected Claims 38-40, 80-82, and 122-124 under 35 U.S.C. §103(a) as being unpatentable over Hayase et al. (US 2002/0106478) in view of Kilkenny et al. (US 2003/0100465).

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Amended Claims 1, 41, and 83 are unobvious over Hayase as reasoned above. Since Claims 38-40, 80-82, and 122-124 are dependent upon Claims 1, 41, and 83, Claims 38-40, 80-82, and 122-124 are unobvious over Hayase et al. (US 2002/0106478) in view of Kilkenny et al. (US 2003/0100465).

Accordingly, the objection to Claims 38-40, 80-82, and 122-124 is overcome and it is respectfully urged that it be withdrawn.


CONCLUSIONS

In view of the foregoing amendments and remarks, Applicants submit that the application is in condition for allowance. If, however, some issue remains which the Examiner feels may be addressed by Examiner's amendment, the Examiner is cordially invited to call the undersigned for authorization.

Please charge any additional fees, including fees for additional extensions of time, or credit overpayment to Deposit Account No. 03 2270.

Respectfully submitted,
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